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# U. S. DEPARTMENT OF AGRICULTURE,

BUREAU OF ANIMAL INDUSTRY.—CIRCULAR 115.

A. D. MELVIN, CHIEF OF BUREAU.

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## OFFICIALS, ASSOCIATIONS, COMMISSIONS, AND EDUCATIONAL INSTITUTIONS CONNECTED WITH THE DAIRY INTERESTS OF THE UNITED STATES FOR THE YEAR 1907.

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WASHINGTON, D. C., *July 1, 1907.*

The accompanying lists, compiled under the direction of Ed. H. Webster, Chief of the Dairy Division of this Bureau, contain the names and addresses of all the principal officials connected with the dairy industry, and exhibit the facilities offered in the several States for technical dairy instruction.

A. D. MELVIN, *Chief of Bureau.*

Approved:

JAMES WILSON,

*Secretary of Agriculture.*

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**UNITED STATES DEPARTMENT OF AGRICULTURE.**

JAMES WILSON, *Secretary.*

W. M. HAYS, *Assistant Secretary.*

**BUREAU OF ANIMAL INDUSTRY.**

A. D. MELVIN, *Chief.*

A. M. FARRINGTON, *Assistant Chief.*

**DAIRY DIVISION.**

**ADMINISTRATION.**

ED. H. WEBSTER, *Chief.*

C. B. LANE, *Assistant Chief.*

**DAIRY FARMING INVESTIGATIONS.**

B. H. RAWL, assistant dairyman, in charge.

*Southern dairying:* B. H. Rawl; Duncan Stuart, assistant in dairying; S. E. Barnes, J. E. Dorman, T. E. Woodward, C. O. Moser, A. K. Risser, and J. C. Guthrie, assistant dairymen; J. A. Conover, scientific assistant in dairying; H. P. Lykes, agent in dairying.

*Dairy records:* Wm. Hart Dexter, assistant dairyman.

**DAIRY PRODUCTS INVESTIGATIONS.**

C. E. GRAY, assistant dairyman, in charge.

*Butter:* C. E. Gray; C. W. Fryhofer, scientific assistant in dairying; W. S. Smarzo, P. H. Kieffer, collaborators.

*Cheese:* C. F. Doane, assistant dairyman; T. W. Issajeff, expert cheese maker; J. W. Moore and F. R. Thomson, experts in dairying; S. K. Suzuki, collaborator; L. D. Bushnell, expert in dairy bacteriology; Charles Thom and A. W. Dox, assistant dairymen.

*Milk secretion:* R. H. Shaw, assistant dairyman; A. E. Perkins, scientific assistant; A. H. Douglass, assistant chemist.

*Milk:* L. A. Rogers, bacteriological chemist.

**ORGANIZATION AND MANAGEMENT INVESTIGATIONS.**

*Creameries: Drafting and designing:* B. D. White, assistant dairyman, in charge; H. J. Credicott, assistant dairyman; G. H. Parks and K. E. Parks, architects.

*Market milk service:* C. B. Lane, assistant chief, in charge; G. M. Whitaker, dairy inspector; E. M. Santee and Ivan C. Weld, assistant dairymen.

**RENOVATED BUTTER INSPECTION.**

M. W. Lang, room 510, No. 22 Fifth avenue, Chicago, Ill., dairy inspector, in charge; Robert McAdam, dairy inspector; Levi Wells, 6 Harrison street, New York, N. Y., dairy inspector; S. B. Willis and H. P. Olson, deputy inspectors.

## OFFICES AND LABORATORIES OUTSIDE OF WASHINGTON.

*New York office:* No. 6 Harrison street; Levi Wells in charge.

*Chicago office:* Room 510, No. 22 Fifth avenue; M. W. Lang in charge.

*Soft cheese laboratories:* Storrs, Conn., in cooperation with Storrs Experiment Station; Charles Thom in charge.

*Cheddar cheese laboratories:* Madison, Wis., in cooperation with Wisconsin Experiment Station; director of station in charge.

*Milk secretion laboratories:* Columbia, Mo., in cooperation with Missouri Experiment Station; R. H. Shaw in charge.

*Butter and Swiss cheese laboratories:* Albert Lea, Minn., in cooperation with Minnesota Experiment Station; C. F. Doane in charge.

*Herd test and feeding station:* Hammond, La., in cooperation with the Louisiana Experiment Station; T. E. Woodward in charge.

## STATE DAIRY OFFICIALS.

**CALIFORNIA.** Secretary and chemist of State dairy bureau, William H. Saylor, 259 Sanchez street, San Francisco; appointed by State dairy bureau. Four inspectors appointed by State dairy bureau for dairies, factories, and markets. Inspections as required. Appropriation, \$10,000. Police work: Prosecuting for violations of State dairy laws. State dairy bureau of three members, appointed by the governor, serving without compensation.

**COLORADO.** State dairy commissioner, B. G. D. Bishopp, Denver; appointed by the governor. Deputy commissioner, James J. Girardet, Denver. Inspections by commissioner or deputy. Other inspectors for meat and slaughterhouses. Appropriation, \$2,700. Educational work: Institutes, dairymen's meetings, factory instruction. Police work: Cooperation with city authorities, application of the tuberculin test, prosecution of violators of the pure-food law.

**CONNECTICUT.** Dairy commissioner, J. B. Noble, Hartford; appointed by the governor. Deputy commissioners, R. O. Eaton, Montowese; H. F. Totten, North Haven. Three inspectors, appointed by the commissioner. Inspections when necessary. Appropriation for inspection, \$5,300; for laboratory work, \$2,500.

**IDAHO.** State dairy, food, and oil commissioner, A. F. Hitt, Boise; appointed at a joint meeting of the commission and the State board of horticultural inspection. State chemist, Robert R. Gibson. Appropriation, \$4,000. Salary of chemist, \$2,000 additional.

**ILLINOIS.** State food commissioner, Alfred H. Jones, 1623 Manhattan Building, Chicago; appointed by the governor. Assistant commissioner, H. E. Schuknecht, 1623 Manhattan Building. Three inspectors appointed by the commissioner.

**INDIANA.** State food and drug commissioner, H. E. Barnard, Indianapolis; appointed by State board of health. Four inspectors appointed by State board of health. Appropriation, \$29,000. Police work: Enforcement of the pure-food law.

**IOWA.** State food and dairy commissioner, H. R. Wright, Des Moines; appointed by the governor. Deputy commissioner, W. E. Smith, Des Moines. Assistant dairy commissioners, W. B. Johnson, Des Moines; F. L. Odell, Des Moines. Six food inspectors and fourteen milk inspectors. Appropriation for dairy inspection, \$5,000; for food inspection and laboratory work, \$15,000; other work, \$2,000. Educational work: Institutes, scoring contests, dairymen's meetings, factory instruction. Police work: Enforcement of dairy and food laws.

**KENTUCKY.** The State pure-food law is enforced by the experiment station and is particularly enforced with regard to milk and dairy products. Head of food division, R. M. Allen, Lexington.

**KANSAS.** State dairy commissioner, John C. Kendall, Manhattan; appointed by the governor on recommendation of secretary of State board of agriculture, director State experiment station, and professor of dairying in Kansas State Agricultural College. Four inspectors working under State board of health. Inspection of creameries and dairies at least once a year. Appropriation, \$4,000. Educational work: Institutes, scoring contests, dairymen's meetings, factory instruction. Police work: Condemnation of unwholesome dairy products and prosecution of violators of dairy laws.

**MASSACHUSETTS.** Executive officer of the dairy bureau, the secretary of the State board of agriculture. General agent, State dairy bureau, P. M. Harwood, 136 Statehouse, Boston; elected by State board of agriculture. Chemist, B. F. Davenport, 161 Tremont street, Boston. Four inspectors, appointed by dairy bureau through its general agent. Inspections twice a year. Appropriation, \$7,000. Educational work: Institutes, scoring contests, dairymen's meetings, lectures before granges and farmers' organizations. Police work: Prosecutions of violators of dairy laws.

**MICHIGAN.** Dairy and food commissioner, A. C. Bird, Lansing; appointed by the governor. Deputy commissioner, Colon C. Lillie, Coopersville. Eight dairy inspectors, appointed by the commissioner; inspections two or three times a year. Six inspectors of other foods, inspecting bakeries, restaurants, ice-cream plants, etc. Appropriation, \$35,000; fees, \$5,000 additional. Educational work: Institutes, scoring contests, dairymen's meetings, factory instruction. Police work: Prosecutions of violators of dairy laws.

**MINNESOTA.** Dairy and food commissioner, Edward K. Slater, St. Paul; appointed by the governor. Assistant commissioner, John McCabe, St. Peter. Inspectors appointed by the commissioner, seven for butter, two for cheese, two for milk, one for herd and barn, one for canning factory, and six other food inspectors. Appropriation, \$46,200. Educational work: Scoring contests, dairymen's meetings, and factory instruction; also instruction, one month, in dairy course at agricultural college. Police work: Enforcing pure-food laws.

**MISSOURI.** State dairy commissioner, R. M. Washburn, Columbia; appointed by the governor. Deputy commissioner, M. H. Lamb, Columbia. Inspection by commissioner and deputy. Appropriation, \$5,000. Educational work: Scoring contests, dairymen's meetings, factory instruction, and farmers' institutes.

**NEBRASKA.** Food commissioner, the governor of the State. Deputy commissioner, E. L. Redfern, Lincoln; appointed by the governor. Four inspectors appointed by the deputy commissioner, inspecting methods of testing cream, methods of production, and creameries. Appropriation for dairy inspection, \$10,500; food inspection, \$5,300; laboratory work, \$3,000.

**NEW JERSEY.** Chief inspector of food and drugs, George W. McGuire, Trenton; appointed by State board of health. Assistant inspectors, appointed by State board of health, S. S. Van Druff, Sussex; W. F. Townsend, Camden; David Bowen, Asbury Park; Jerome Graves, Elizabeth. The chief and four assistant inspectors perform all the work of food and dairy inspection. Appropriation, \$24,000. Police work: Preventing deception and fraud in the sale of food and drug products.

**NEW YORK.** Commissioner of agriculture (including dairy), Charles A. Wieting, Albany; appointed by the governor. All other employees of the State department of agriculture are appointed by the commissioner through examination under civil service. First assistant commissioner, George L. Flanders, Albany; assistant commissioners, Henry H. Kracke, acting assistant commissioner, No. 23 Park Row, New York City; S. Brown Richardson, Lowville; E. J. Preston, Amenia, C. E. Sackett, 144 Arcade Building, Utica; C. T. Russell, Munnsville; Verlett C. Beebe, Arcade; William T. Hughes, 221 Powers Block, Rochester; James P. Clark, Falconer; J. H. Grant, 715 Mutual Life Building, Buffalo. Four instructors for butter, 6 for cheese, 33 special agents, inspecting milk, cheese, and food products. Inspections are continuous. Other inspectors include 12 horticultural, 13 veterinarian, and 1 bee inspector. Appropriation for instructors, inspectors, and special agents, \$63,100, besides an undesignated share in the general appropriation for the State department of agriculture. Educational work: Farmers' institutes, dairymen's meetings, and factory instruction. Police work: Enforcing sanitary conditions.

**NORTH DAKOTA.** Commissioner of agriculture and labor, ex officio State dairy commissioner, W. C. Gilbreath; appointed by the governor. Assistant dairy commissioner, R. F. Flint, Bismarck; appointed by the commissioner of agriculture and labor. Pure-food commissioner, E. F. Ladd, Fargo; appointed by the governor. Inspections once a year. Appropriation for dairy inspection, \$2,000; for food inspection, including laboratory work, \$10,000. Educational work: Institutes, dairymen's meetings, factory instruction, and herd testing. Police work: Enforcing sanitary conditions.

**OHIO.** State dairy and food commissioner, Renick W. Dunlap, Columbus; elected at general State election. Chief inspector, Charles H. May, Columbus. Two assistant commissioners and six inspectors of dairy and food products, appointed by the commissioner. Appropriation, \$40,350. Police work: Enforcing dairy and pure-food laws.

**OREGON.** Dairy and food commissioner, J. W. Bailey, room 19 Breeden Building, Portland; elected by the people. Deputy, Bert Pilkington. Appropriation, \$4,800. Educational work: In institutes.

**PENNSYLVANIA.** Dairy and food commissioner, James Foust, Harrisburg; appointed by the governor. Assistant commissioner, Oliver D. Schock, Harrisburg. Fifteen special agents appointed by the commissioner act as inspectors. Appropriation, \$175,000 for two years, which is more than covered by fees, fines, and costs collected. Police work: Enforcement of dairy and pure-food laws and prosecution of offenders.

**SOUTH DAKOTA.** Food and dairy commissioner, A. H. Wheaton, Brookings; appointed by the governor. Two inspectors, appointed by the commissioner. Appropriation for dairy inspection, \$2,000; for food inspection, \$2,000; for laboratory work, \$1,500; for other work, \$2,500. Educational work: Institutes, scoring contests, dairymen's meetings, factory instruction.

**UTAH.** Dairy and food commissioner, John Peterson, Salt Lake City; appointed by the governor. Chemist, Harmen Harms. Two inspectors of dairy products and other foods. Appropriation, \$1,000. Police work: Enforcement of the laws.

**WASHINGTON.** Dairy and food commissioner, L. Davies, Davenport; appointed by the governor. Deputy commissioner, L. W. Hanson, Seattle. Two inspectors, appointed by the commissioner. Appropriation, \$21,600 for two years. Educational work: Institutes, dairymen's meetings, factory instruction, instruction on the farms in the care of butter, cream, and milk. Police work: Sanitary inspection.

**WISCONSIN.** Dairy and food commissioner, J. Q. Emery, Madison; appointed by the governor. Assistant commissioner, U. S. Baer, Madison. Second assistant commissioner, H. C. Larson, Dodgeville. Nine inspectors, appointed by the commissioner, with the approval of the governor, subject to the civil-service law. Two inspectors of other foods. Appropriation, \$37,000. Educational work: Institutes, aid the dairy school, dairymen's meetings, and factory instruction. Police work: Prosecution of violators of the law.

### DAIRY ASSOCIATIONS.

The chief work of dairy associations is educational, but they also take an interest in all matters pertaining to the industry, especially legislation and the enforcement of dairy laws.

Most of the organizations named below publish the proceedings of their annual meetings. These are usually issued separately, but are sometimes included with the reports of the State departments of agriculture. It is now difficult to obtain full sets of reports of the older associations, which embrace much dairy information of a valuable and practical character. The same is true of reports of the American Dairymen's Association (1866-1880) and the Northwestern Dairymen's Association (1867-1883), which were disbanded when their fields of operation had become occupied by the younger associations in the several States.

A considerable part of the expense of holding conventions and publishing reports is met by membership fees, which are generally \$1 a year, and by special subscriptions of private individuals, firms, and towns where the meetings are held; also by receipts from advertisements inserted in the official programmes; but in most States the expense is largely defrayed by annual grants of the legislatures.

Prizes consisting of money and articles useful in the dairy are frequently offered by the supply trade and others for the best packages of butter and cheese exhibited at the meetings.

Following is a list of all dairy associations whose interests cover any considerable part of a State or larger territory:

**National Association of Dairy Instructors and Investigators.** Organized 1906. Object, to advance the interests of dairy instruction and investigation. Membership, dairy instructors and investigators (of college rank) in the agricultural colleges, experiment stations, and dairy divisions of the United States Department of Agriculture and Canadian department of agriculture. President, R. A. Pearson, Cornell University, Ithaca, N. Y. Vice-president, Oscar Erf, State Agricultural College, Manhattan, Kans. Secretary-treasurer, C. B. Lane, assistant chief Dairy Division, United States Department of Agriculture, Washington, D. C. Annual meeting, probably Chicago, Ill., October 10-19, 1907.

**Association of State and National Food and Dairy Departments.** Organized 1896. Membership, State and Federal dairy and food-control officials. Receives contributions from State departments as required. President, Horace Ankeney, Xenia, Ohio. Vice-president, E. F. Ladd, Fargo, N. Dak. Secretary, R. M. Allen, Lexington, Ky. Treasurer, T. K. Bruner, Raleigh, N. C. Next annual meeting, Sault Ste. Marie, August 18, 1908.

**National Dairy Show.** Incorporated. Organized 1905. Object: Exhibition of modern dairy machinery and appliances, dairy products and dairy cattle, working dairies, and sanitary milk plants. Educational features: Competition in judging contests, meetings of butter and cheese makers, and a national convention of dairymen. Cooperating organizations: Dairy Division of the United States Department of Agriculture, agricultural colleges and experiment stations, and the associations of breeders of dairy cattle. President, H. B. Gurler, De Kalb, Ill. Vice-president, H. E. Van Norman, State College, Pa. Secretary, E. Sudendorf, room 307, 154 Washington street, Chicago, Ill. Treasurer, Granger Farwell, Chicago, Ill. Superintendent of live stock, A. J. Glover, associate editor Hoard's Dairyman, Fort Atkinson, Wis. Annual meeting, Chicago, Ill., October 10-19, 1907.

**National Creamery Buttermakers' Association.** Organized 1891. Membership 450. President, J. J. Farrell, Carver, Minn. Vice-president, J. G. Moore, Milwaukee, Wis. Secretary, S. B. Shilling, Chicago, Ill. Next annual meeting, St. Paul, Minn., March 14-16, 1908.

**National Dairy Union.** Incorporated. Organized 1891. Membership, estimated, 10,000. President, S. B. Shilling, 154 Lake street, Chicago, Ill. Secretary and treasurer, Charles Y. Knight, 154 Lake street, Chicago. Vice-president, George W. Linn, South Water street, Chicago. Next annual meeting, Chicago, October, 1907.

**Boston Cooperative Milk Producers' Association.** Incorporated. Organized 1904. Membership represents 4,000. President, Stanley H. Abbott, Wilton, N. H. Vice-president, J. Bemis, Charlton Depot, Mass. Secretary, W. A. Hunter, 10 Florence street, Worcester, Mass. Treasurer, J. D. Tyler, South Berlin, Mass. Next annual meeting, third Tuesday in January, 1908, Boston, Mass.

**Five States Milk Producers' Association.** Organized 1898. Membership about 2,500. President, Ira L. Snell, Kenwood, N. Y. Vice-president, O. P. Moore, Roxbury, N. Y. Secretary and treasurer, H. T. Coon, Homer, N. Y. Next annual meeting, Binghamton, N. Y., October 15, 1907.

**CALIFORNIA. California Creamery Operators' Association.** Organized 1900. Membership 200. President, E. B. Stowe, Stockton. Vice-president, W. G. Taylor, San Francisco. Secretary and treasurer, J. H. Severin, 36 Commercial street, San Francisco. Next annual meeting, Davisville, probably during December, 1907.

**CONNECTICUT. Connecticut Dairymen's Association.** Incorporated. Organized 1882. Membership 450. Receives State aid, \$1,500. President, H. G. Manchester, Winsted. Vice-president, Wilson H. Lee, New Haven. Secretary, J. G. Schwink, jr., Meriden. Treasurer, B. C. Patterson, Torrington. Next annual meeting, Hartford, third week in January, 1908.

*Connecticut Creamery Association.* Organized 1890. Membership 16. President, E. A. Russell, Suffield. Vice-president, F. H. Stadtmueller, Elmwood. Secretary and treasurer, J. M. Williams, Manchester. Next annual meeting, Hartford, second Wednesday in January, 1908.



**GEORGIA.** *Georgia Dairy and Live Stock Association.*<sup>a</sup> Reorganized 1905. Membership 75 to 100. State department of agriculture assists in publishing annual reports. President, George C. Dillon, Macon. Vice-president, J. Q. Nolan, McDonough. Secretary and treasurer, C. L. Willoughby, Experiment. Next annual meeting, Griffin, October 9 and 10, 1907.

**IDAHO.** *Idaho State Dairy Association.* Organized 1897. President, H. T. French, Moscow. Vice-president, Dr. V. C. Platt, Marsh. Secretary A. E. Gipson, Caldwell. Treasurer, C. B. Marlatt, Caldwell. Annual meeting fixed by officers. Last annual meeting, January 23, 1907.

**ILLINOIS.** *Illinois Dairymen's Association.* Incorporated. Organized 1874. Membership 325. Receives State aid, \$1,500. President, L. N. Wiggins, Springfield. Vice-president, J. P. Mason, Elgin. Secretary, George Caven, 154 Lake street, Chicago. Treasurer, Adolph Meyer, Greenville. Last annual meeting, Joliet, January 16-19, 1907.

*Illinois Buttermakers' Association.* Organized 1906. Membership 90. President, R. N. Zimmerman, Xenia. Vice-president, J. L. Cooksley, Stillman Valley. Secretary and treasurer, J. B. Newman, Elgin. Last annual meeting, Chicago, November 15, 1906.

*Illinois Dairy Cattle Improvement Association.* Organized 1907. President, Hon. John Stewart, Elburn. Secretary, A. O. Auten, Jerseyville.

*Illinois State Milk Producers' Institute.* Incorporated. Organized 1904. Membership, estimated, 500. Receives State aid, \$500. President, D. D. Hunt, De Kalb. Vice-president, H. S. Earley, Sycamore. Secretary, J. M. McVean, 184 La Salle street, Chicago. Treasurer, L. E. Mentch, Cory. Next annual meeting, probably February, 1908, at Elgin or Chicago.

*Chicago Milk Shippers' Union.* Incorporated. Organized 1897. Membership 500. President, Hiram Holcomb, Sycamore. Vice-president, L. Robbins, McCool, Ind. Secretary, H. B. Farmer, 99 Randolph street, Chicago. Treasurer, S. B. Woods, Crown Point, Ind. Annual meeting, last Monday in February, 1908, Chicago.

**INDIANA.** *Indiana State Dairy Association.* Incorporated. Organized 1891. Membership 185. Receives State aid, \$500. Contributions about \$250 and membership fees. President, D. B. Johnson, Mooresville. Vice-president, I. B. Calvin, Kewanna. Secretary and treasurer, H. J. Fidler, Purdue University, Lafayette. Last annual meeting, Indianapolis, January 30, 31, 1907.

*Northern Indiana Dairy and Creamery Association.* Organized 1906. Membership 30. President, W. V. Clifford, Kewanna. Vice-president, Samuel Schlosser, Plymouth. Secretary and treasurer, A. H. Compton, New Carlisle. Last annual meeting, Plymouth, December, 1906.

*Eastern Indiana Dairy Association.* Organized 1906. Membership 30. President, O. W. S. Warnock, Portland. Vice-president, C. F. Cather, Anderson. Secretary and treasurer, W. B. Woolman, Pendleton. Last annual meeting, Indianapolis, January 30, 31, 1907.

*Southern Indiana Dairy and Cooperative Creamery Association.* Organized 1906. Membership 124. President, James Bobbet, Eckerty. Vice-president, John Heitman, Holland. Secretary and treasurer, H. A. Reynolds, Huntingburg. Last annual meeting, Huntingburg, April 4, 1907.

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<sup>a</sup> Enlargement of Georgia Dairymen's Association, organized 1894, and Georgia Live Stock Breeders' Association, 1903.

**IOWA.** *Iowa State Dairy Association.* Organized 1877. Membership 500. Some aid received by donations and advertising. President, W. B. Barney, Hampton. Vice-president, L. S. Edwards, Arlington. Secretary, W. B. Johnson, Des Moines. Treasurer, F. M. Brown, Cedar Rapids. Next annual meeting, Des Moines, probably in November, 1907.

*Eastern Iowa Buttermakers' Association.* President, L. S. Edwards, Arlington.

*North Central Iowa Buttermakers' Association.* Organized 1904. Membership 25. President, J. J. Bruner, Charles City. Vice-president, H. E. Forester, Fredericksburg. Secretary and treasurer, O. H. Buehrer, Alta Vista. Next annual meeting, New Hampton, September, 1907.

**KANSAS.** *Kansas State Dairy Association.* Organized 1888. Membership 300. President, Thomas A. Borman, Topeka. Vice-president, C. S. Craybell, Abilene. Secretary and treasurer, I. D. Graham, Topeka. Next annual meeting, at call of officers. (Last annual meeting, Manhattan, January 3, 4, 1907.)

**KENTUCKY.** *Kentucky State Dairymen's Association.* Organized 1907. Membership 35. President, H. D. Rodman, Shelbyville. Vice-president, F. M. Gray, Elizabethtown. Secretary and treasurer, J. J. Hooper, State College, Lexington. Next annual meeting, Frankfort, February, 1908.

*Shelby County Dairy and Cattle Breeders' Association.* Organized 1905. Membership 75. President, Hart Wallace, Shelbyville. Vice-president, Will Johnson, Charles Station. Secretary and treasurer, J. Archie Bell, R. F. D. No. 5, Shelbyville. Annual meeting, Shelbyville, March, 1908.

*Hardin County Dairy Association.* Organized 1906. Membership 40. President, W. C. Jenkins, Elizabethtown. Vice-president, J. P. Chenault, Sonora. Secretary and treasurer, Lawrence Richardson, Elizabethtown. Annual meeting, third Monday in June, 1907.

*Fayette County Dairymen's Association.* Organized 1907. Membership 27. President, R. D. Collins, Lexington. Vice-president, C. T. Downing, Lexington. Secretary and treasurer, J. J. Hooper, Lexington. Annual meeting, Lexington, first Saturday in June.

**MAINE.** *Maine Dairymen's Association.* Organized 1898. Membership 80. Receives State aid, \$500. President, F. S. Adams, Bowdoinham. Vice-president, W. H. Hunton, Readfield. Secretary, L. W. Dyer, Woodfords. Treasurer, R. Alden, Winthrop. Last annual meeting, Farmington, December 2-4, 1906.

**MASSACHUSETTS.** *Massachusetts Creamery Association.* Organized 1895. Membership 50. State board furnishes speakers at annual meetings. President, Watson K. Wright, Easthampton. Vice-president, F. J. Humphrey, Amherst. Secretary and treasurer, Aurret M. Lyman, Montague. Next annual meeting, Northampton, December 19, 20, 1907.

**MICHIGAN.** *Michigan Dairymen's Association.* Incorporated. Organized 1885. Membership 500. Receives State aid, \$300. President, Colon C. Lillie, Coopersville. Vice-president, W. H. Bechtel, Caro. Secretary and treasurer, S. J. Wilson, Flint. Last annual meeting, Saginaw, February 13-15, 1907.

*Grand Traverse Dairymen's Association.* Organized 1901. Membership 90. In addition to membership fees receives aid from contributions and advertising. President, George A. Robertson, Traverse City. Vice-president, A. E. Palmer, Kalkaska. Secretary and treasurer, James Harris, Traverse City. Annual meeting, Traverse City, March, 1908.

**MINNESOTA.** *Minnesota State Dairymen's Association.* Incorporated. Organized 1877. Membership 450. Receives State aid, \$3,000. President, L. A. Sweet, Fairmont. First vice-president, Robert Crickmore, Owatonna. Second vice-president, W. F. Schilling, Northfield. Secretary, J. R. Morley, Owatonna. Treasurer, August Ahlswede, Jordan. Last annual meeting, Owatonna, January 22-24, 1907.

*Minnesota State Butter and Cheese Makers' Association.* Incorporated. Organized 1894. Membership 385. Receives State aid, about \$500. President, James C. Sorenson, Maple Plain. Vice-president, J. E. Lindall, Long Siding. Secretary, E. T. Greeley, Alden. Treasurer, W. L. Parkin, Northfield. Last annual meeting, Minneapolis, October 31-November 1, 1906.

*Red River Valley Dairymen's Association.* Organized 1903. Membership 92. President, J. A. Wilson, Menominee, Wis. Vice-president, William Robinson, Brookston. Second vice-president, H. L. Flagel, Erskine. Secretary and treasurer, Joel G. Winkjer, Crookston. Next annual meeting, Crookston, November 6, 7, 1907.

*Eastern Minnesota Buttermakers' Association.* Organized 1904. Membership 32. President, E. O. Bomquist, Center City. Vice-president, Erick A. Wahlstrom, Rush City. Secretary, John E. Lindberg, R. F. D., Harris. Treasurer, Erhard Lindblad, North Branch. Last annual meeting, Rush City, February 7, 1907.

*Minnesota Cooperative Dairies Association.* Organized 1907. Membership 38. President, J. R. Morley, Owatonna. Vice-president, E. Everson, Litchfield. Secretary, Robert Crickmore, Owatonna. Treasurer, Andrew French, Plainville. Next annual meeting, St. Paul, February 26, 1908.

**MISSOURI.** *Missouri State Dairy Association.* Organized 1890. Membership 150. State board of agriculture furnishes occasional speakers. President, Dr. George C. Mosher, Bryant Building, Kansas City. Vice-president, J. M. Smith, Brookfield. Secretary, R. M. Washburn, Columbia. Treasurer, D. B. Matthews, Kirksville. Last annual meeting, Columbia, January 10, 11, 1907.

**MONTANA.** *Montana State Dairymen's Association.* Organized 1906. Membership 40. President, John Oliver, Cascade. Vice-president, M. Mattson, Hall. Secretary and treasurer, W. J. Elliott, Bozeman. Two general meetings, Billings in November and Great Falls in December, 1907.

**NEBRASKA.** *Nebraska Dairymen's Association.* Organized 1885. Membership 224. Receives State aid, \$1,000. President, H. C. Young, Lincoln. Vice-president, A. C. Jones, Blair. Secretary and treasurer, S. C. Bassett, Gibbon. Next annual meeting, Lincoln, January, 1908.

**NEW HAMPSHIRE.** *Granite State Dairymen's Association.* Incorporated. Organized 1903. Membership 100. Receives State aid, \$700. President, Ivan C. Weld, Washington, D. C. Vice-president, A. J. Richardson, Littleton. Secretary, Frank R. Sanders, Bristol. Treasurer, E. E. Bishop, Littleton. Next annual meeting, Whitefield, December, 1907.

**NEW YORK.** *New York State Dairymen's Association.* Incorporated. Organized 1877. Membership 400. Self-sustaining from advertising. President, W. W. Hall, Gouverneur. Vice-president, W. H. Jordan, Geneva. Secretary, Thomas E. Tiquin, Sherburne. Treasurer, W. E. Griffith, Madrid. Next annual meeting, Malone, December 10-13, 1907.

**NORTH CAROLINA.** *North Carolina State Dairymen's Association.* Organized 1905. Membership 40. President, R. H. Gower, Clayton. Secretary, C. M. Conner, West Raleigh. Annual meeting, August 21, 1907.

**NORTH DAKOTA.** *North Dakota Dairymen's Association.* Organized 1891. President, Peter Miller, Ellendale. Vice-president, Gustave Kruempel, La Moure. Secretary, E. E. Kaufman, Fargo. Treasurer, R. H. Herbison, Tower City.

**OHIO.** *Ohio Dairymen's Association.* Organized 1894. Membership 151. Aided by subscriptions, \$412 for 1907. President, John D. Nichols, 1312 Euclid avenue, Cleveland. Vice-president, J. O. Winters, Greenville. Secretary and treasurer, E. S. Guthrie, Ohio State University, Columbus. Last annual meeting, February 20, 21, 1907, Columbus.

**OKLAHOMA.** *Oklahoma Dairy Association.* Organized 1904. Secretary, Frank D. Northup, Oklahoma City. Last annual meeting, Guthrie, February 19, 1905.

**OREGON.** *Oregon Dairymen's Association.* Organized 1892. Membership 76. President, E. T. Judd, Turner. Vice-president, A. T. Buxton, Forest Grove. Secretary and treasurer, F. L. Kent, Corvallis. Next annual meeting, probably, Portland, December, 1907.

**PENNSYLVANIA.** *Pennsylvania Dairy Union.* Organized 1898. Membership 200. President, H. E. Van Norman, State College. Vice-president, G. M. Carpenter, Wilkesbarre. Secretary, W. E. Perham, Niagara. Treasurer, M. E. Reeder, Muncy. Next annual meeting, Wilkesbarre, January 14-16, 1908.

*Creamery Association of Eastern Pennsylvania and Vicinity.* Reorganized 1896. Membership 100. President, John I. Carter, Chatham. Vice-president, Joseph C. Sharpless, London Grove. Secretary and treasurer, George R. Meloney, 1937 Market street, Philadelphia. Next annual meeting, Philadelphia, first Saturday in January, 1908.

**SOUTH CAROLINA.** *South Carolina Live Stock Association (includes dairying).* Organized 1902. Membership 140. President, Thomas Taylor, Columbia. Vice-presidents: John G. Mobley, in charge of dairy cattle department, Winnsboro; C. G. Voight, in charge of dairy manufacturing department, Easley. Secretary and treasurer, Dr. Louis A. Klein, Clemson College. Next annual meeting, Columbia, February, 1908.

**SOUTH DAKOTA.** *South Dakota Dairymen's and Buttermakers' Association.* Organized 1906. Membership 125. President, George A. Crooks, Crooks. Vice-president, A. T. Ryger, Milbank. Secretary and treasurer, Albert Andersen, Savo. Last annual meeting, Redfield, October 24-26, 1906.

**TEXAS.** *Texas State Dairymen's Association.* Organized 1894. Membership 110. President, W. R. Spann, Dallas. Vice-president, Farmer Shaw, Corpus Christi. Secretary and treasurer, D. A. Cline, San Antonio. Last annual meeting, Agricultural and Mechanical College, College Station, January, 1907.

**UTAH.** *Utah Dairymen's Association.* Organized 1894. Membership 75. President, Lorenzo Hanson, Logan. Last annual meeting, Richmond, October, 1905.

**VERMONT.** *Vermont Dairymen's Association.* Organized 1869. Membership 600. Receives State aid, \$1,000, and about \$400 from advertising. President, D. H. Morse, Randolph. Vice-presidents: B. A. Hutt, Ryegate; George Dunsmore, St. Albans. Secretary, F. L. Davis, North Pomfret. Treasurer, M. A. Adams, Derby. Last annual meeting, Burlington, January 8-10, 1907.

**WASHINGTON.** *Washington State Dairymen's Association.* Organized 1894. Membership 100. President, D. S. Tracy, Chimacum. Secretary, Ira P. Whitney, Pullman. Last annual meeting, Spokane, second week in December, 1906.

**WEST VIRGINIA.** *West Virginia State Dairy Association.* Organized 1903. Membership 75. Receives State aid for expenses of officers at yearly meetings, about \$100. President, B. F. Mann, Fort Spring. Vice-president, J. R. Wells, Bens Run. Secretary and treasurer, W. K. Brainerd, Morgantown. Next annual meeting, Weston, January, 1908.

**WISCONSIN.** *Wisconsin Dairymen's Association.* Organized 1872. Membership 200. Receives State aid, \$4,000. President, W. J. Gillett, Rosendale. Vice-presidents, all former presidents. Secretary, George W. Burchard, Fort Atkinson. Treasurer, H. K. Loomis, Sheboygan Falls. Last annual meeting, Tomah, February 20-22, 1907.

*Wisconsin Cheesemakers' Association.* Incorporated. Organized 1893. Membership 450. Receives State aid, \$600. President, Matthew Michels, Madison. Vice-president, Fred Marty, Monroe. Secretary, U. S. Baer, Madison. Treasurer, F. E. Carswell, Richland Center. Last annual meeting, Milwaukee, January 9-11, 1907.

*Southern Wisconsin Cheesemakers' Association.* Organized 1901. Membership 141. President, Thomas Luchsinger, Monroe. Vice-President, John Wehinger, Woodford. Secretary, S. J. Stauffacher, Monroe. Treasurer, Joe Ackermann, Monroe. Last annual meeting, Monroe, February 27, 28, 1907.

*Wisconsin Buttermakers' Association.* Incorporated. Organized 1901. Membership 400. Receives State aid, \$500, and contributions for premium fund. President, E. C. Dodge, Lake Mills. Vice-president, L. H. Schroeder, Hustler. Secretary, J. G. Moore, Madison. Treasurer, G. Spiers, Eau Claire. Last annual meeting, Wausau, February 5-8, 1907.

*Brown County Buttermakers' Association.* Organized 1904. Membership 20. President, James McGill, Suamico. Vice-president, Ralph Gregory, New Franken. Secretary, Lauritz Olson, West De Pere. Treasurer, Clay Tyler, West De Pere. Next annual meeting, Green Bay, January, 1908.

## DAIRY INSTRUCTION.

In the prominent dairy States and in several others the State agricultural colleges and some other institutions conduct dairy schools in which they offer short courses in the different branches of dairying. Instruction continues a few weeks, and is given by lectures, laboratory practice, and work in the dairy. It includes the principles of breeding and feeding of dairy cattle, practical exercise in testing milk, and the manufacture and care of dairy products; in some cases, also, the pasteurization of milk and a brief study of dairy bacteriology. There are few entrance requirements.

All of the instruction given in the short courses is offered to the students taking longer dairy courses and the full college courses in agriculture, and these have opportunity to pursue advanced work and to specialize along lines in which they are most interested.

As a rule, all the work in the creamery and cheese-factory short courses bears directly

upon these industries, while in the farm-dairy courses subjects less closely related to dairying are usually taken.

The names of the institutions at which instruction in dairying is given, the kind and amount of the work, as well as the season when offered, together with the names and addresses of instructors in charge, to whom requests for further information may be sent, are stated below :

**ALABAMA.** *Alabama Polytechnic Institute.* College course, dairying, sophomore year, September 10 to December 20, two hours lectures and four hours practice per week. Twenty students taking this course in the last sophomore class. Address : Prof. D. P. Gray, Auburn.

*Tuskegee Normal and Industrial Institute.* (Colored.) Regular course, farm dairying, two years. Short course of two weeks for farmers. Dairy extension work is carried on with the Jesup wagon, which is a traveling school of agriculture, giving dairy instruction throughout the country. Address : Prof. George W. Carver, Tuskegee.

*Agricultural and Mechanical College for Negroes.* Dairy school. September 1 to February 27, three hours per week, first, second, and third years of school. Two hours lectures, one hour practice. Thirty-one students. Address : Prof. H. Hopkins, Normal.

**ARKANSAS.** *University of Arkansas.* Regular college course September 18 to February 1. Nineteen weeks, four hours per week for sophomores in four years' course. September 18 to June 10, thirty-seven weeks, three hours per week, for freshmen in two years' course. Twelve students. Short course of two weeks gives three days exclusively to dairying. Work of dairy extension is carried on through farmers' institutes. Address : Prof. V. A. Hooper, Fayetteville.

**CALIFORNIA.** *University of California.* Dairy school, eight weeks, beginning October 2, 1907. Eleven students. Regular college course, junior year, eight hours practice, one hour lecture. Short-course students take practice work in dairying. Dairy extension work is carried on by farmers' institutes and special dairy meetings. Address : Prof. E. W. Major, University Farm, Davisville, or University of California, Berkeley.

*California Polytechnic School.* Regular course, dairying second year, two periods recitation, four periods laboratory practice. First term, milk testing; second term, butter making; third term, cheese making. Dairy extension is carried on through farmers' institutes. Address : Prof. Leroy Anderson, San Luis Obispo.

**COLORADO.** *State Agricultural College.* College course, one term, junior year. Theory four hours per week throughout term. Practice ten hours per week for half term. Short course, five weeks of three hours per day. Dairy extension, through farmers' institutes. Address : Prof. H. M. Bainer, Fort Collins.

**CONNECTICUT.** *Agricultural College.* College course, dairying, third year, fall term, two hours per week lectures. Dairy breeds, fourth year, fall term, one hour lecture and six hours practice per week. Breeding, fourth year, fall term, two hours lectures per week. Feeding, fourth year, fall term, five hours lectures per week. Stock judging, fourth year, winter term, three hours lectures and six hours practice per week. Dairying, fourth year, spring term, five hours lectures and nine hours practice per week. Short

course twelve weeks, winter term, also ten days short dairy courses. Dairy extension, by addresses at farmers' institutes and grange meetings. Address: Prof. J. M. Truman, Storrs.

DELAWARE. *Delaware College*. Agricultural courses being reorganized. Address: Prof. Harry Hayward, Newark.

FLORIDA. *University of Florida*. College course, freshman year, sixteen weeks, three hours per week. Short course, dairying same as long course. Dairy extension, through farmers' institutes. Address: Prof. R. W. Clothier, Gainesville.

*State Normal and Industrial School*. Nineteen students receive dairy instruction in the dairy division of school of agriculture throughout the school year of eight months. Address: Prof. H. W. Crutcher, Tallahassee.

GEORGIA. *State College of Agriculture and Mechanic Arts*. Address: Prof. James M. Johnson, Athens.

IDAHO. *College of Agriculture, University of Idaho*. College course, dairying four years, three to five hours per week. Short course, one year. Farmers' winter course, six weeks. Address: Prof. J. H. Frandson, Moscow.

ILLINOIS. *College of Agriculture, University of Illinois*. Department of dairy husbandry, dairying required in freshman year, three hours per day, nine weeks. Elective courses, milk, dairy cattle, factory management, city milk supply, dairy bacteriology, cheddar cheese, fancy cheese, feeding and care of the herd, purebred herds, dairy farm management, butter making, development of the dairy industry. Two hundred and fifty-seven students, taking all courses together. Dairy extension work, testing cows, feeding demonstrations, and creamery work. Address: Prof. Wilbur J. Fraser, Urbana.

INDIANA. *School of Agriculture, Purdue University*. Dairy school, January 21 to March 15. Farm dairy and creamery short courses, February 1 to June 12, freshmen or sophomores. September 12 to June 12, juniors and seniors. Twenty students in short course; 40 freshmen, 6 juniors and seniors, 4 thesis students. College course, freshman or sophomore, half year or semester, two lectures and six labor hours. Juniors and seniors one year each, two lectures and six labor hours per week. Short courses, (1) ten days, one-third class room and two-thirds laboratory work, studying starters, cream ripening, and butter scoring; (2) ten days, for adults, farm butter-making and milk testing. Dairy extension, by herd tests, organization of district associations, dairy meetings, inspection of dairies and creameries, butter-scoring contests, special dairy trains. Address: Prof. O. F. Hunziker, Lafayette.

IOWA. *State College of Agriculture and Mechanic Arts*. Dairy school, four years' course, one year's course, and two weeks' course; 250 pupils in attendance. College course, freshman year, thirty-two hours lectures, forty-eight hours laboratory; sophomores, sixty-four hours lectures and ninety-six hours laboratory; juniors, sixty-six hours lectures, one hundred and thirty-three hours laboratory; seniors, eighty-eight hours lectures, four hundred and forty hours laboratory, counting credits for theses and research. Additional elective work offered: In one-year course, two hours daily lectures and four hours laboratory; in two-weeks' course, thirty-six lecture

hours, forty-eight laboratory hours. Short course, January 7-13, in butter-making and farm dairying, including principles and practice. Dairy-extension work, in testing cows, organizing test associations, and institute work. Address: Prof. G. L. McKay, Ames.

**KANSAS.** *State Agricultural College.* Dairy school, twelve weeks for sophomores, beginning September 12. Two ten-weeks' courses beginning January 6. Three special courses of twelve weeks each, beginning April 1. One hundred and forty pupils. College course, dairying, four terms, two hours of instruction and ten hours practice work each per week, with three hours additional instruction for seniors. Dairy extension, by three-days' dairy schools in the various counties of the State. Address: Prof. Oscar Erf, Manhattan.

**KENTUCKY.** *Agricultural and Mechanical College of Kentucky.* College course, dairying in senior year. Fall term, three hours lectures and six hours practice each per week. Short course, winter term, three hours per week class room and three hours laboratory. Extension work in farmers' institutes and inspection of creameries. Address: Prof. J. J. Hooper, Lexington.

**LOUISIANA.** *Southern University and Agricultural and Mechanical College.* Dairy school, four years' course and two years' course. One-half of the time is given to theory and one-half to practice. Seventeen students. Address: Prof. C. E. Roos, 5116 Magazine street, New Orleans.

**MAINE.** *University of Maine.* College course, dairying, eight weeks in junior year, two hours per week lectures, seven hours per week practice. Short course, four weeks; ten hours lectures and eighteen hours practice each week. Dairy extension, by reading courses and lectures at farm institutes and grange meetings. Address: Prof. G. M. Gowell, Orono.

**MARYLAND.** *Agricultural College.* College course, dairying, junior year, third term, ten weeks, three hours practice per week. Two-year course, third term, two hours lectures, three hours practice per week. Short course, winter, ten weeks. Dairy extension, by farmers' institutes. Address: Prof. C. W. Melick, College Park.

*Princess Anne Academy.* College course, dairying, two years. Time equally divided between theory and practice. Address: Prof. J. D. Henry, Princess Anne.

**MASSACHUSETTS.** *Agricultural College.* College course, dairying, sophomore year, thirty-two hours lectures; senior year, elective, twenty-eight hours lectures, sixty hours practice. Short course, ten weeks, beginning January 2, dairy farming, creamery practice, and city milk service. Thirty-six students. Address: Prof. W. P. Brooks, Amherst.

**MICHIGAN.** *State Agricultural College.* Dairy school, three winter courses; creamery, six weeks; cheesemaking, four weeks; farm dairying, eight weeks. Forty-two creamery students, 19 cheesemaking students, and 23 farm-dairying students. College course, dairying, sophomore year, twelve weeks; one and one-half hours theory and two hours practice per week. Senior year, thirty-six weeks; five hours theory and ten hours practice per week. Address: Prof. C. D. Smith, Agricultural College.



MINNESOTA. *College of Agriculture, University of Minnesota.* Dairy school, creamery, farm dairy, cheesemaking, winter, four weeks. College course, one and one-half years class work, one year practice. Short course, six weeks practice in judging and lectures on dairy husbandry. Dairy extension work, by lectures at meetings of patrons of creameries and cheese factories. Address: Prof. T. L. Haecker, St. Anthony Park, St. Paul.

MISSISSIPPI. *Agricultural and Mechanical College.* College course, dairying, freshman year, one term, two hours per week; sophomore year, one term, five hours per week lectures, two hours practice; junior year, one term, nine hours per week (one-half lectures, one-half practice); senior year, one term, nine hours per week (one-half lectures, one-half practice). Short course, in farm dairying, four weeks, beginning February 4. Five students. Address: Prof. J. S. Moore, Agricultural College.

MISSOURI. *College of Agriculture and Mechanic Arts, University of Missouri.* Dairy school, two months' course, beginning first week in January. College course, dairying, freshman year, one term, thirty-four hours lectures, fifty hours practice; can elect sixty-eight hours lectures and one hundred and two hours, each, in three courses, laboratory work and practice. Short course, dairying, six hours lectures, six hours practice per week for eight weeks. One hundred and nineteen students, in short course and regular college course. Dairy extension work, by lectures at farmers' institutes and material for popular distribution by State board of agriculture. Address: Prof. C. H. Eckles, Columbia.

MONTANA. *State College of Agriculture and Mechanic Arts.* Dairy school, special creamery course, one month, beginning March 1. Six students. College course, dairying given in freshman, junior, and senior years. Short course, two weeks in February. Dairy extension work, in cooperation with creameries of the State, with a view to improving dairy herds. Address: Prof. W. J. Elliott, Bozeman.

NEBRASKA. *Industrial College and School of Agriculture, University of Nebraska.* Dairy school, long course, twenty-four weeks, begins November 4. Four hours lectures and two hours practice per week. College course, first and second years, sixteen weeks each, with four hours practice and two hours lectures per week. Short course, dairying, nine weeks, beginning January 2. Four hours practice and two hours lectures. Three hundred and twenty-five students in all courses. Dairy extension work in farmers' institutes. Address: Prof. A. L. Haecker, Lincoln.

NEW HAMPSHIRE. *College of Agriculture and Mechanic Arts.* Dairy school, ten weeks, beginning January 8. Twelve students. College course, dairying, junior year, fifteen weeks, three hours laboratory and two hours recitations per week. Short course, ten weeks, three hours practice and two recitation periods per week. Dairy extension work, in cooperation with Granite State Dairymen's Association. Address: Prof. F. W. Taylor, Durham.

NEW JERSEY. *State Agricultural College.* College course, senior year, two terms, lectures only. Thirty-eight students. Short course, three months, beginning January 2, three hours lectures, four hours practice daily. Dairy extension work, in farmers' institutes and grange meetings. Address: Prof. George A. Billings, New Brunswick.

**NEW MEXICO.** *College of Agriculture and Mechanic Arts.* College course, dairying, second term, sophomore year. Two hours theory, two hours practice daily. Agricultural extension work, with traveling dairy school. Address: President Luther Foster, Agricultural College.

**NEW YORK.** *College of Agriculture, Cornell University.* College course, dairy industry equal to eight hours per week, or half the students' time through two years, about one-half practice. Three to six hours per week in animal husbandry for one year. Seventy-five students. Winter dairy course, creamery, cheese factory, market milk, milk testing, two-thirds practice, twelve weeks, beginning December 3. Farm dairying in the winter course in general agriculture, three hours per week, one-fifth of students' time in milk testing and farm dairy butter making; two-thirds of this work is practice. One hundred and thirty students. Dairy extension work, by correspondence and reading-course lessons. Address: Prof. R. A. Pearson, Ithaca.

**NORTH CAROLINA.** *College of Agriculture and Mechanic Arts.* College course, freshman year, spring term, thirty lecture periods of one hour each; sixty hours practice, senior year, dairying elective, three hours per week. Two-year agricultural course, first year, fall term thirty lecture periods, ninety hours practice. Short course, in agriculture and dairying, eight weeks, beginning January 7. Dairy extension work, butter contests, State and county dairy associations, farmers' institutes, cooperative herd testing, instruction in silo and farm building in cooperation with Dairy Division, United States Department of Agriculture. Address: Prof. C. M. Conner, West Raleigh.

*Agricultural and Mechanical College for the Colored Race.* Dairy school, one-year course, 20 pupils. College course, one year, equally divided between theory and practice. Short course, four weeks in winter. Address: Prof. P. E. Robinson, Greensboro.

**NORTH DAKOTA.** *North Dakota Agricultural College.* College course, farm dairying, senior year, sixty hours lectures, seventy-four hours practice. Three-year agricultural course, sixty lectures, seventy-four hours practice. Short course, farm dairying, winter, ten weeks, thirty lectures, forty-eight hours practice. Sixty students. Address: Prof. J. H. Shepperd, Fargo.

**OHIO.** *Ohio State University.* Dairy school, twelve weeks' course beginning December 2. Twenty-three pupils. College course elective, junior and senior years. Two lecture and two three-hour laboratory periods per week. Household dairying, spring term, two hours per week. Milk inspection, fall term, two hours per week. Two-year course, dairying one year, elective. Winter course, one term dairying, elective, two half days per week. Dairy extension work; one man has given half his time to such work. Address: Prof. E. S. Guthrie, Columbus.

**OKLAHOMA.** *Oklahoma Agricultural and Mechanical College.* College course, dairying junior year, one term, three hours lectures, four hours practice per week. Two-year course, dairying one term, three lectures and four hours practice per week. One-year short course dairying same as two-year course. Extension work, by factory demonstrations at college and dairy institutes. Address: Prof. Roy C. Potts, Stillwater.

**OREGON.** *Oregon State Agricultural College.* Dairy school, six weeks beginning January 8. Twenty-four students. College course, dairying, sophomore year, half term, theory; junior year, one term practice. Short course, two weeks, beginning January 8. Dairy extension work, in farmers' institutes. Address: Prof. F. L. Kent, Corvallis.

**PENNSYLVANIA.** *School of Agriculture, State College.* College course, dairying in junior and senior years, fifty-one hours lectures and one hundred hours practice; elective courses of one hundred and twenty-six hours lectures and one hundred and eighty-five hours practice. Fifty-two students. Short course, dairying, twelve weeks, and special farmers' week. Dairy extension work, creamery visiting. Address: Prof. H. E. Van Norman, State College.

**RHODE ISLAND.** *Rhode Island College of Agriculture and Mechanic Arts.* College course, dairying, spring term, three hours per week, elective. Address: President Rhode Island College of Agriculture and Mechanic Arts, Kingston.

**SOUTH CAROLINA.** *Clemson Agricultural College.* College course, dairying, junior year, seven months; four hours theory, four hours practice per week. Dairy extension work, in farmers' institutes. Address: Prof. John Michels, Clemson College.

**SOUTH DAKOTA.** *South Dakota Agricultural College.* Dairy school, twenty-four weeks, beginning in January. Eleven students. College course, freshman and sophomore years, dairying, eighteen weeks. Dairy extension work, by farmers' institutes, exhibitions at State fairs, and correspondence. Address: Prof. James W. Wilson, Brookings.

**TENNESSEE.** *State Agricultural and Mechanical College, University of Tennessee.* Dairy school, creamery, farm dairy and judging, principles of dairying and dairy farming, three weeks. Seventeen students. College course, senior year, dairying, winter and spring terms, thirty-six lecture and twenty practice periods. Summer school, butter and cheese making, testing milk, separating and dairy farming, two weeks in June. Dairy extension work, dairy expert in the field in cooperation with Dairy Division, United States Department of Agriculture. Address: Prof. James N. Price, Knoxville.

**TEXAS.** *Agricultural and Mechanical College of Texas.* College course, junior year, dairying, one term, three hours theory, five hours practice; senior year, elective, one term, three hours theory. Address: Prof. C. H. Alvord, College Station.

*Prairie View State Normal and Industrial College.* Dairy school, nine months, twelve hours practice each week. Sixty students. College course, sophomore and junior classes, time evenly divided between theory and practice. Address: Prin. E. L. Blackshear, Prairie View.

**UTAH.** *Agricultural College of Utah.* College course, junior year, eighteen weeks dairying, two-thirds practice, three hours per week. Three-year course, second year, first term, eighteen weeks. Short winter course, four weeks dairying, one lecture, three hours practice per day, for farmers and factorymen. Address: Prof. C. Larsen, Logan.

**VERMONT.** *University of Vermont and State Agricultural College.* College course, dairying, senior year, winter, four weeks, five hours per week (two-thirds lectures, one-third practice). Fifty students. Address: Prof. C. L. Beach, Burlington.

**VIRGINIA.** *Agricultural and Mechanical College.* College course, dairying, two terms, one lecture, six hours practice per week, freshman year. Thirty-one students. Short course, one term, one lecture, six hours practice per week. Dairy extension work, in farmers' institutes. Address: Prof. William D. Saunders, Blacksburg.

*Hampton Normal and Agricultural Institute.* (Colored.) Regular course, dairying, boys, ten periods lectures; girls, twelve periods lectures and twelve periods practice. Special agricultural course, three years, two months dairy practice, five to seven hours daily. Graduate three-year course, four months dairy practice, four to six hours daily and sixty forty-minute periods, class work. Dairy extension work through nature-study bureau. Address: Prof. E. A. Bishop, Hampton.

**WASHINGTON.** *State College of Washington and School of Science.* Dairy school, creamery and cheese factory, winter, eight weeks. College course, farm dairying, nineteen weeks, three hours per week; dairy technique, nineteen weeks, three hours per week; milk production, nineteen weeks, two hours per week; milk inspection, nineteen weeks, one hour per week; butter and cheese scoring, nineteen weeks, one hour per week; lectures and laboratory work. Short course, farm dairying, nineteen weeks, one hour per week. Farmers' course, farm dairying, two weeks, lectures and practice. Address: Prof. E. E. Elliott, Pullman. (Report of 1906.)

**WEST VIRGINIA.** *College of Agriculture, West Virginia University.* College course, dairying, six courses of twelve to fourteen weeks each, one-third lectures, two-thirds practice. Short course for farmers, winter, four weeks. Thirty-four students. Dairy extension work, in dairy schools of one week each in various counties. Address: Prof. W. K. Brainard, Morgantown.

**WISCONSIN.** *College of Agriculture, University of Wisconsin.* Dairy school: (1) Winter course, November 6, 1907, to January 30, 1908, twelve weeks; (2) Swiss-cheese course, February 1-15, 1907, two weeks; (3) summer course, March 1 to November 1 (any ten weeks); (4) farm-dairy course, December 1 to March 1 (fourteen weeks); (5) long course, September to June each year; (6) farmers' course, two weeks. College course, effective during junior and senior years, half time theory and half time laboratory, covering all phases of dairying. Seven hundred and ninety students in all. Dairy extension work in butter and cheese scoring exhibits. Address: Prof. E. H. Farrington, Madison.

*Dunn County School of Agriculture.* Regular course, dairying, first year, winter, twelve weeks, one-fourth lectures, three-fourths practice. Short course, dairying, winter, twelve weeks. Dairy extension work, in farmers' institutes. Address: Prof. James A. Wilson, Menomonie.

### MILK COMMISSIONS.

**Medical Milk Commission of Essex County, N. J.** Organized April 13, 1893. Dr. Thomas W. Harvey, chairman. Dr. Floy McEwen, secretary, No. 299 Belleville avenue, Newark, N. J.

**New York Medical Milk Commission.** Organized November 16, 1896. Dr. L. Emmett Holt, chairman. Dr. John H. Huddleston, secretary, No. 126 West Eighty-fifth street, New York, N. Y.

**Milk Commission of the Philadelphia Pediatric Society.** Organized January, 1899. Dr. J. P. Crozer Griffith, chairman. Dr. Samuel McC. Hamil, secretary, No. 1822 Spruce street, Philadelphia, Pa.

- Milk Commission of Medical Society of County of New York.** Organized 1900. Dr. E. K. Dunham, chairman. Dr. Rowland G. Freeman, secretary, No. 205 West Fifty-seventh street, New York, N. Y.
- Milk Commission of Medical Society, County of Kings, Brooklyn, N. Y.** Organized March, 1901. Dr. William A. Northridge, chairman. Dr. David Myerle, secretary and treasurer, No. 510 Bedford avenue, Brooklyn, N. Y.
- Milk Commission of the Hartford County Medical Society, Hartford, Conn.** Dr. Walter G. Murphy, chairman. Dr. Robert S. Starr, secretary, No. 75 Pratt street, Hartford, Conn.
- Milk Commission of Rochester, N. Y.** Organized 1901. Dr. R. M. Moore, secretary, No. 74 South Fitzhugh street, Rochester, N. Y.
- Milk Commission of the Elmira Academy of Medicine.** Organized April, 1902. Dr. C. W. M. Brown, chairman. Dr. Rose G. Loop, secretary, No. 54 South Main street, Elmira, N. Y.
- Milk Commission of the Medical Society of the County of Albany, Albany, N. Y.** Organized May, 1902. Dr. James P. Boyd, chairman. Dr. Henry L. K. Shaw, secretary, No. 198 Washington avenue, Albany, N. Y.
- Milk Commission of Milwaukee, Wis.** Organized January 13, 1903. Albert W. Myers, secretary, 141 Wisconsin avenue, Milwaukee, Wis.
- St. Louis Pure Milk Commission.** Organized February, 1904. Dr. George M. Tuttle, chairman. Dr. A. S. Bleyer, secretary, No. 705 North Kings Highway, St. Louis, Mo.
- Milk Commission of the Cincinnati Academy of Medicine, Cincinnati, Ohio.** Organized June, 1906. Dr. Alfred Friedlander, chairman. Dr. Otto P. Geier, secretary, 124 Garfield place, Cincinnati, Ohio.
- Milk Commission of the Suffolk District Medical Society, Boston, Mass.** Dr. John Lovett Morse, chairman. Dr. Wilder Tilston, secretary, No. 117 Beacon street, Boston, Mass.
- Milk Commission of the Cambridge Medical Improvement Society, Cambridge, Mass.** Organized June, 1906. Dr. William D. Swann, chairman. Dr. Albert P. Norris, secretary, No. 760 Massachusetts avenue, Cambridge, Mass.
- Milk Commission of Jefferson County Medical Society, Louisville, Ky.** Organized September, 1906. Dr. Cuthbert Thompson, chairman. Dr. Ben Carlos Frazier, secretary, No. 239 Chestnut street, Louisville, Ky.
- Milk Commission of Akron, Ohio.** Dr. E. M. Weaver, 18 South Broadway, Akron, Ohio.
- Milk Commission, City of Cleveland, Ohio.** Organized December, 1904. Samuel Mather, esq., chairman. Dr. J. J. Thomas, secretary and treasurer, No. 1878 Eighty-seventh street, Cleveland, Ohio.
- Oakland Home Club Milk Commission, Oakland Cal.** Organized December, 1904. Dr. C. Annette Buckel, chairman. Dr. Sarah I. Shuey, secretary, No. 952 Fourteenth street, Oakland, Cal.
- Milk Commission of Syracuse Academy of Medicine, Syracuse, N. Y.** Organized 1905. Dr. A. Clifford Mercer, chairman. Dr. Albert S. Hotaling, secretary, No. 801 East Genesee street, Syracuse, N. Y.

**Milk Commission of Children's Hospital Society of Chicago.** Mr. Ernest Bicknell, chairman. Dr. A. Belcham Keyes, secretary, 100 State street, Chicago, Ill.

**Milk Commission of Toledo, Ohio.** Dr. William C. Chapman, chairman. Dr. Charles W. Moots, secretary, Madison court, Toledo, Ohio.

**Milk Commission of San Francisco County Medical Society, San Francisco, Cal.** Dr. Alfred B. Spaulding, chairman, No. 2510 Washington street, San Francisco, Cal.

**Milk Commission of Hennepin County Medical Society, Minneapolis, Minn.** Dr. Lester W. Day, secretary.

**Milk Commission of the Washington Medical Society of District of Columbia.** Dr. W. M. Sprague, chairman.

### **ASSOCIATIONS OF BREEDERS OF PUREBRED DAIRY ANIMALS.**

The interests of the different breeds of dairy cattle are in charge of organizations of breeders which determine purity of breeding, verify pedigrees, register eligible animals, and publish herdbooks. Some of them record and publish sales and transfers and attested records of dairy performances. They also establish standards of excellence. The details of the work are usually left to the secretary. The names of the various associations and the addresses of the secretaries are as follows:

*Ayrshire Breeders' Association.* Secretary, C. M. Winslow, Brandon, Vt.

*Brown Swiss Breeders' Association.* Secretary, C. D. Nixon, Owego, N. Y.

*Dutch Belted Cattle Association of America.* Secretary, H. B. Richards, Easton, Pa.

*American Guernsey Cattle Club.* Secretary, William H. Caldwell, Peterboro, N. H.

*Holstein-Friesian Association of America.* Secretary, F. L. Houghton, Brattleboro, Vt.

*American Jersey Cattle Club.* Secretary, J. J. Hemingway, 8 West Seventeenth street, New York, N. Y.

In addition to the strictly dairy cattle named above, some breeds, primarily developed for beef production, are occasionally bred and used as dairy cattle. Their associations are as follows:

*American Devon Cattle Club.* Secretary, L. P. Sisson, Newark, Ohio.

*American Polled Durham Breeders' Association.* Secretary, Fletcher S. Hines, P. O. box 445, Indianapolis, Ind.

*Red Polled Cattle Club of America.* Secretary, H. A. Martin, Gotham, Wis.

*American Shorthorn Breeders' Association.* Secretary, John W. Groves, 17 Exchange avenue, Union Stock Yards, Chicago.

The following breeds are of practical dairy value, although not yet officially certified as purebred:

*The American Polled Jersey Cattle Club.* Secretary, Charles S. Hatfield, Springfield, Ohio.

*American Milch Goat Record Association.* Secretary, W. A. Shafor, Hamilton, Ohio.

**INTERNATIONAL DAIRY FEDERATION.**

(Fédération Internationale de Laiterie.)

(For the organization of the Third International Dairy Congress, to be held at The Hague, The Netherlands, September 16-20, 1907.

*Committee of organization:* President, Dr. P. S. Wijsman, University of Leyden; Secretary, Dr. A. J. Swaving, Inspector to the Ministry of Agriculture, Trade, and Industry, The Hague; member for the United States, Ed. H. Webster, Chief of Dairy Division, Bureau of Animal Industry, U. S. Department of Agriculture, Washington, D. C.

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